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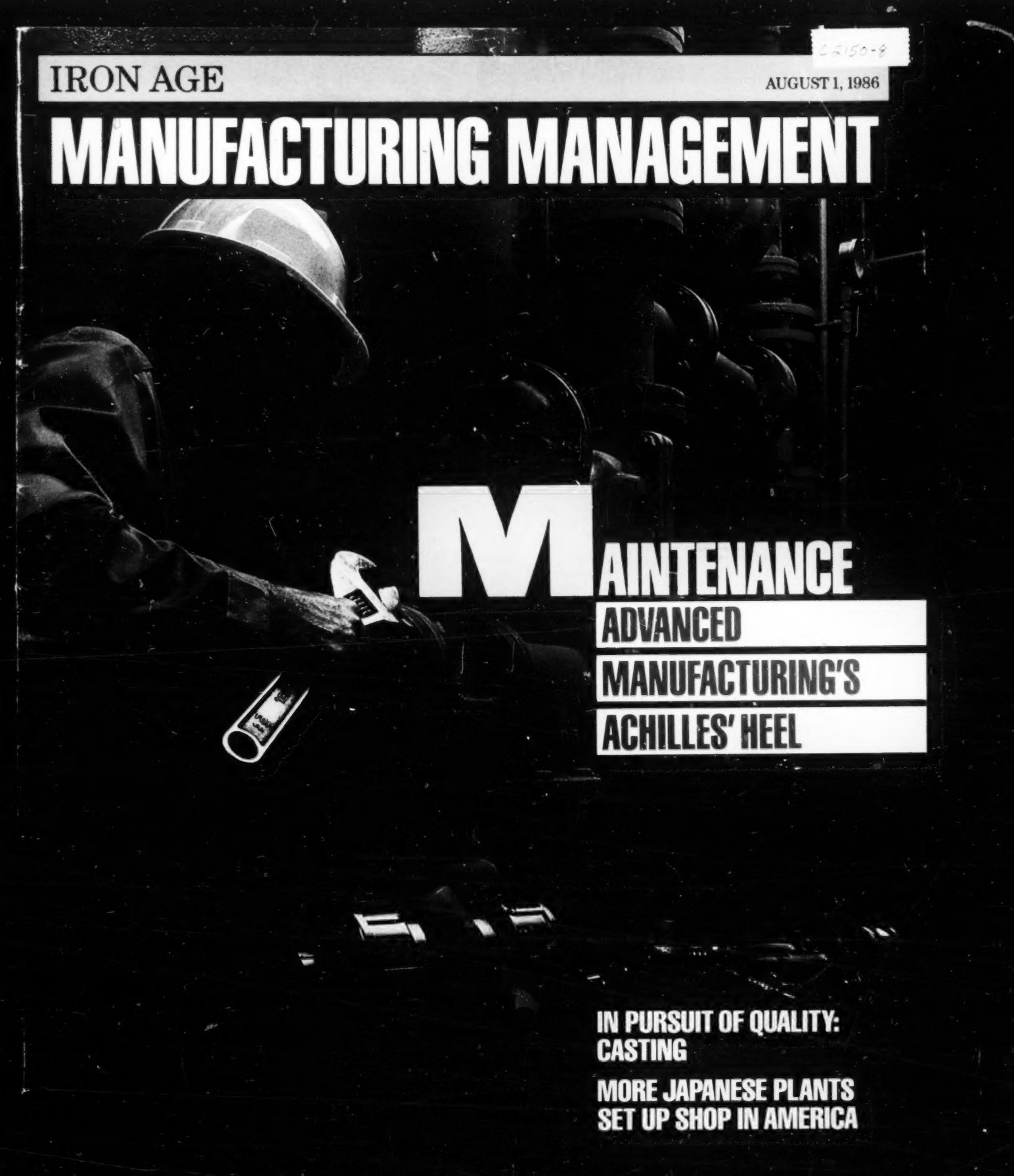
IRON AGE AUGUST 1, 1986

MANUFACTURING MANAGEMENT



MAINTENANCE ADVANCED MANUFACTURING'S ACHILLES' HEEL

IN PURSUIT OF QUALITY: CASTING

MORE JAPANESE PLANTS SET UP SHOP IN AMERICA

AUGUST 1, 1986 VOL. 229, NO. 15

IRON AGE
MANUFACTURING MANAGEMENT

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JAPANESE SET UP SHOP IN U.S.A. IN A BIG WAY

The strong yen and protectionism fears spur Japanese manufacturers to set up more operations in this country. These plants often become market leaders – particularly in metalworking product lines.

BY JOHN D. BAXTER

Japanese exports to this country are easing off – not much, but some. And that is the first sign of cooling in a long, long time.

That news is music to the ears of many import-battered U.S. manufacturing industry executives.

Still, quite a number of executives are not beguiled by the music of import relief. They hear, at the same time, another tune being played. And this is marching music – as Japanese competitors march, in ever-increasing numbers, into this country with their plants, not just their products. They are setting up shop in America to make their goods here.

The trend for the Japanese to set up plants, acquire plants or enter into joint ventures in the U.S. is not a new one, of course. The Japanese already have a strong presence in goods-producing in this country. But the direct investment trend seems to be gaining strength, and it shows every sign of becoming stronger as time goes on.

More than that, as will be noted, the trend promises to increase the *intensity* of industry competition in this country to levels unmatched in the past.

Japanese exports to this country will continue to roll in, and in good-size numbers. But more and more, U.S.-based Japanese-owned or controlled plants likely will become a growing competitive scourge for U.S. manufacturers.

In a recent study, by the Heritage Foundation, it was noted that Japanese direct investment in this country grew from $229 million in 1970 to a currently-estimated $17 billion. Morever, through that period, the shift of investment has been from nonmanufacturing to manufacturing.

The researcher at the foundation cited a survey run last year by the Japan Economic Institute that showed that in 1970 there were only 12 U.S. manufacturing companies in which Japanese firms held more than 50 pct of the stock. But by 1985, there were nearly 400 such companies – plus more than 500 U.S. plants fully owned by Japanese.

It is not just the growing size of the Japanese investment gains in

U.S. manufacturing that is significant to industry executives. An important point is that much of this investment is taking dead aim on their markets.

For example, U.S. basic goods manufacturing industries are restructuring to an extent far greater than in other manufacturing sectors. And it is industry restructuring that is creating direct investment opportunities for Japanese manufacturers.

In the U.S. Commerce Dept.'s latest report on expenditures made by foreign investors to acquire or establish U.S. businesses, it was noted that, "Continued economic growth in the U.S. and other developed countries, and *corporate restructuring in the U.S.* were the key factors in the increased spending."

Target: Basic Goods

In short, many of Japanese direct investment dollars are pouring into what is termed a "hollowing" U.S. manufacturing structure. And much of that hollowing involves basic goods industries such as steel, autos and industrial machinery.

As can be seen in the table here, the Japanese do not have the largest direct investment base in this country. Their investment total of $17 billion is far surpassed by the United Kingdom's $43 billion and the Netherland's $35 billion.

But again, it is in the nature and the trend of U.S. investment by the Japanese that is distinctive. In a Commerce Dept. compilation of direct investments covering the first three quarters last year, Japan accounted for 86 investments in terms of number of transactions. That surpassed the 80 made by the United Kingdom and the 18 made by the Netherlands.

Aside from plant construction and expansion investments, other foreign direct outlays made in the period went for acquisitions (where the UK led), equity increases, realty transactions and other targets. That is the range of

Direct Investment in U.S. Manufacturing by Country of Origin

Millions of Dollars

	1984	1985
All countries	$3,106	$11,435
Europe	1,952	9,174
Canada	289	1,155
Japan	865	611

Source: U.S. Commerce Dept.

investments considered to be 'direct.' And by U.S. Commerce Dept. definition, an investment becomes 'direct' when a foreign source owns 10 pct or more of the stock. In Wall Street terms, an investment of less than 10 pct is considered a 'portfolio' investment.

Direct investment in U.S. manufacturing by Japanese corporations is bound to grow and to grow strongly. The forces propelling the drive seem too strong to expect otherwise.

The immediate cause of the rising tide of Japanese manufacturing here is the recent strengthening of the yen. The yen, in less than a year's time, has appreciated in relation to the dollar by more than 35 pct. And, of course, the higher the yen goes, the more costly become Japanese imports in world markets.

The Japanese, in order to hold on to their cherished high import-won market shares in many countries have been taking a beating as far as profits go.

That situation makes exporting all the less attractive to many Japanese manufacturers. It has led them to look around for better, more profitable ways, to sell in foreign markets.

One possible more profitable way, of course, is direct investment. In view of the rise in the value of the yen, Japanese can now, in effect, buy 35 pct more plants here per yen than they could just nine months ago. If the yen rises further, exporting will become even less attractive to the Japanese, and direct investment all the more attractive.

The yen situation lately has been aggravated by a softening Japanese economy. In late June, Japan reported that it has experienced its first quarterly economic contraction in 11 years. Further, its leading indicator index now points to further contraction. As one trade analyst summed up, "It's another good reason for more Japanese manufacturers to start looking for overseas plant sites or acquisitions."

Another Growth Spur

Another spur to direct investment by Japanese manufacturers is the rise of protectionism sentiment throughout the world. Simply, Japan's vaunted strength in exporting, and the huge global trade surplus balances it has run up is coming back to haunt it—haunt it with a world-wide rising tide of protectionism, that is.

Japan's trade surplus last year was up a whopping $12.5 billion to a record $46.5 billion.

(In contrast, in May the U.S. trade *deficit* ran at an annual rate of $170 billion).

Washington observers generally report that the mood of Congress is moving towards protectionism. A similar mood has been noted in the 10-nation European Economic Community.

But, U.S. protection proponents will find it is easier to try to block imports than it is to block direct investments. Protectionism as understood in this country, means protection from imports, not from direct investment. After all, this country itself has long been the world leader in setting up production in other countries. Japan is just playing this country's game when it sets up shop here. At this time, more than 50 pct of the world's overseas investment is held by the U.S. and Japan.

Some Pluses

There are perceived advantages for this country to direct invest-

Foreign investment in U.S. industry swells . . .

Foreign Direct Investment in U.S. Industry
Millions of Dollars

	1983	1984	1985
All U.S. Industry	$8,091	$15,197	$19,547
Manufacturing, Total	3,113	3,106	11,435
Primary & Fabricated Metals	177	558	995
Machinery, Nonelectrical	98	375	655
Machinery, Electrical	373	160	835

...and individual investments grow larger

Total Number of Investments Made in U.S.	775	764	508
Dollar Value of Investments (Billions $)	$8.1	$15.2	$19.5

ments that are not seen in imports. For example, the more than 500 Japanese-owned manufacturing companies that now run plants in this country, directly employ 100,000 Americans, according to research economist Katsuro Sakoh.

He also noted that another 300,000 American jobs are filled by parts suppliers, transportation companies, distributors and various other support firms.

Mr. Sakoh is a senior policy analyst at the Washington think tank, Asian Studies Center. His study was published earlier this year by the Heritage Foundation.

The analyst noted other advantages of direct investment to this country. "Increased Japanese investment in the U.S., especially in the manufacturing sector," he said, "reduces imports from Japan while promoting the transfer of new Japanese technology and managerial expertise to the U.S. Over time, these contributions will increase U.S. competitiveness in world markets and will improve the overall trade balance."

There is another reason to expect Japanese manufacturers to step up their investments overseas, including the U.S. That country is undergoing what Japanese Prime Minister Yasuhiro Nakasone earlier this year promised President Reagan—"an historical transformation."

The blueprint for this transformation is a White Paper referred to as the Maekawa Report. Basically, this plan calls for Japan to change from an exporting country into an importing one. This means the domestic economy must be given prime attention by Japanese rulers.

A social upheaval in Japan is spurring this transformation. The nation's social and physical infrastructure has lagged far behind its international trade successes. In this transformation, Japan's world-raider manufacturers are no longer heroes in the minds of many Japanese people.

In sum, the new policies are expected to drive many Japanese manufacturers overseas where they can go after bigger markets and be less constricted in their growth efforts.

There is still another important reason to believe that more Japanese manufacturing companies will be setting up shop in this country. Simply, they are being invited, enticed and lured by many states in this country. The interest of state officials, of course, centers on employment and economic development for their states.

To win foreign plants the states compete with one another by offering special grants, tax breaks and other benefits.

According to the National Assn. of State Development Agencies, some 31 states now have a total of 70 offices in foreign countries set up to recruit businesses for their regions. Target A clearly appears to be Japanese plants. Some 22 states have representatives in that country.

California might be considered the beachhead state in the Japanese investment invasion in this country. That state now has 140 Japanese plants, according to the Heritage Foundation report.

There is good reason for U.S. basic goods manufacturers to be deeply concerned about the rise in numbers of Japanese plants in this country. It spells tougher-than-ever competition in many markets.

One U.S. financial analyst has said, "An importer who is a tough competitor is even tougher when he becomes a made-in-America competitor. I've never seen it happen otherwise."

That observation, based mostly on experience in the auto industry, sounds like a clear warning that U.S. companies likely will be facing more and more U.S.-based Japanese competition.

Tough Competitors

Another warning comes from a survey of U.S.-based Japanese-owned companies that was sponsored last year by the Columbia University Graduate School of Business. The analysts summed up their study: "Japanese-owned firms operating in the United States are outperforming their American competitors."

The Columbia report was based on a study of 159 companies "spanning a variety of industries." It credited the success of the Japanese companies to their emphasis on quality and customer service, and the cultivation of

warm relationships between labor and management.

Both the researchers and the Japanese managers labeled as "most important" the involvement of workers in a corporate family.

Stated the report: "By emphasizing a spirit of teamwork and cooperation at all levels of the organizations, they have capitalized on the American desire to be part of a winning team."

Many American companies, in an effort to emulate the great successes of Japanese manufacturing plants, have turned to many of the management techniques used in Japan. But U.S.-based Japanese plants use the techniques little or not at all.

For example, Quality Control Circles, as noted in the study, are used by only 10 pct of the plants surveyed. Just-in-Time inventory control is "used infrequently." And decision-making by consensus is "rarely used."

The elements that remain in common use in both Japan and the U.S. by the surveyed firms was the emphasis on worker involvement, product quality and customer service.

The winning edge of the Japanese plants over U.S. competitors, for one, was seen in 'percent defectives' (the percentage of goods and services deemed unsatisfactory). These ran at 5 pct or less among 95 pct of the surveyed companies. About 50 pct of the firms had a defective rate lower than 0.5 pct. The analysts noted this record compares with a "perhaps 10 pct to 15 pct defectives in American factories."

In worker absenteeism, the respondent firms showed 50 pct with absenteeism less than 1 pct; 95 pct reported less than 5 pct absenteeism. This compares to a national average in U.S. plants of about 5 pct.

Notably, about one-third of the Japanese-owned plants were unionized. Also, even more notably about these plants, the researchers found that "the past three years have seen improvements in many aspects of their performance."

There has been widespread belief that when Japanese companies set up plants in this country they would soon fall into the management patterns of American corporate leaders. However, it is developing that these companies may well be tougher competitors because they have not followed U.S. management patterns.

For example, a recent study by the Japanese government compared corporate objectives of nearly 500 major U.S. and Japanese companies. The study found that U.S. executives ranked return on investment as their principle corporate objective. Increases in price per share of company stock was ranked second, and in third place was market share held by the company.

This priority of objectives contrasted with those of Japanese executives who put market share at the top of their lists. Second, was return on investment, and new products placed third. Share price increase came in last position with the Japanese.

Market Share

So, Japanese-owned U.S. companies give top priority to, and go after, market share enlargement. They back that up by giving high priority to development and introduction of new and improved products. This, while U.S. companies try strongest to boost their returns on investment.

These differences in management priorities add up to another reason U.S. companies will face increasingly tough competition in their markets here as more Japanese plants dot the American landscape. The top priority of Japanese companies is ever-bigger slices of the markets they serve. And when those companies operate in this country, those markets are the ones now held by American companies. Japanese firms feel that big returns on their investments can wait; eventually, bigger market shares will assure those returns.

Noted one financial analyst, "The Japanese sure have logic on their side in the structuring of their corporate priorities."

Notably, also, Japanese-run companies design and use plant investments to win larger market shares. This, of course, takes time. But Japanese executives, unlike many of their American counterparts, are not handcuffed by concerns about short-term profit dilution when they see the competitive market need to acquire the latest equipment for their plants. They see market share enlargement as a long-term matter. And American managers probably will concede that competitors with state-of-the-art equipment are usually tough competitors.

Japanese imports showing signs of easing off? Sure. Easier days ahead for U.S. plants? Not likely. □

The Flow of U.S. Direct Investment

Dollar Data in Billions

	1983	1984	1985
U.S. investments made abroad	$207.2	$213.0	$237.7
Pct increase from Previous Year	2.3%	2.8%	9.2%
Foreign investments made in U.S.A.	$137.2	$164.6	$183.0
Pct increase from previous year	9.9%	20.0%	11.2%

Source: U.S. Commerce Dept.

PRICE & PRODUCTION DATA

(Effective July 14,1986)

Steel production by districts, thousands of tons (000 omitted)

	Last Week	Two Weeks Ago	Month Ago	Year Ago
Northeast Coast	159	143	172	168
Pittsburgh	161	169	213	210
Youngstown	93	66	97	97
Lake Erie	100	100	92	117
Detroit	127	125	148	137
Chicago	386	397	407	495
Midwest	159	165	178	167
Southern	171	174	189	210
Western	81	80	83	94
U.S. Production	1,437	1,419	1,579	1,695

Source: American Iron & Steel Institute

Lake Superior Ore Prices

51.50% Fe Natural delivered lower Lake ports unless otherwise stated. Rail transportation, handling and unloading may be charged to buyer. Coarse ore 80¢ premium.

Pellets (per iron unit natural) ..... gross-ton 58.0*
Pellets (per iron unit natural) ..... gross-ton 59.4**
Pellets (per iron unit natural) ..... gross-ton 72.5-86.9***
Mesabi, regular-unscreened ..... gross-ton $32.53
Mesabi, non-bessemer ..... gross-ton $30.03-31.53

*58.0¢–Mineral Services, 8/13/85. **59.4¢–Inland Steel Mining, 1/1/85 and Pickands Mather, 8/1/85, delivered hold of vessel, upper Lake ports. ***72.5¢–U.S.Steel, 8/16/85. 86.9¢–Oglebay Norton 3/25/82, Hanna Mining and Cleveland-Cliffs 2/26/82.

STEEL PRODUCTION, COMPOSITE PRICES

(Effective July 14,1986)

U.S. Steel Production	Last Week	Two Weeks Ago	To Date 1986	To Date 1985
Net tons, in thousands	1,437	1,419	47,348	47,441
Capability Utilization Rate	59.3	58.5	69.2	66.8

Composite Prices	This Week	Week Ago	Month Ago	Year Ago
Finished Steel Base* (¢/lb.—eff. 5/19/86)	24.850	24.850	24.850	27.582
Pig Iron** (Net ton= 2000 lbs.)	$213.00	$213.00	$213.00	$213.00
Scrap No. 1 hvy.*** (Gross ton=2240 lbs.)	$ 71.83	$ 71.50	$ 70.83	$ 68.83
No. 2 bundles	$ 52.50	$ 52.50	$ 51.50	$ 50.50

Scrap Comparison (Gross Ton)

No. 1 steel, Pittsburgh	$ 71.50	$ 71.50	$ 69.50	$ 72.50
No. 1 steel, Philadelphia	72.50	71.50	71.50	70.50
No. 1 steel, Chicago	71.50	71.50	71.50	63.50
No. 1 bundles, Detroit	66.50	66.50	57.50	64.50
Low Phos., Youngstown	71.50	71.50	68.50	57.50
No. 1 mach'y cast., Pgh	74.50	74.50	73.50	71.50
No. 1 mach'y cast., Phila	93.50	93.50	93.50	91.50
No. 1 mach'y cast., Chi	105.50	105.50	105.50	99.50

*Finished Steel Composite: Weighted index of steel bars, shapes, plates, wire, rails, black pipe, hot and cold rolled sheets and strips.
**Pig Iron Composite: Based on average prices for basic and foundry pig iron at representative producing points within the U.S.
***Steel Scrap Composite: Average of No. 1 hvy. melting steel scrap and No. 2 bundles delivered to consumers at Pittsburgh, Philadelphia and Chicago.

NONFERROUS PRICES

(Effective July 14,1986) Prices obtained in trade based on representative tonnages per gross ton delivered to consumer unless otherwise stated.

Primary Metal Prices

(cents per lb.)	current price	last price	date of change
Aluminum (LME)	51.33	52.00	7/14/86
Copper (C)	63.00-64.00	62.50-64.00	7/11/86
Lead	21.00-24.00	22.00-24.00	7/ 9/86
Magnesium Ingot	153.00	148.00	12/ 9/85
Nickel (LME)	177.06	179.34	7/14/86
Zinc	41.00-44.00	41.00	7/ 1/86

ALUMINUM: Avg. for last week & previous week. COPPER (C) = cathode. LEAD: common grade. MAGNESIUM: 99.8% pig, delivered. NICKEL: Avg. for last week & previous week. ZINC: high grade.

Antimony, American Laredo, Texas	$2.00
Beryllium-aluminum 5% Be, per lb. contained Be	$248.00
Beryllium-copper, per lb. cont. Be	$144.00
Beryllium 97% powder 200	$197.00
Cadmium, ton lots	$1.00
Calcium, ton lots, crown	$3.92
Chromium, 99.5% electro	$4.62
Cobalt, 99%, cathode	$11.70
Gold per troy oz.	$345.75
Indium, dollars per troy oz.	$2.65
Iridium, dollars per troy oz.	$415.00
Magnesium sticks, 10,000 lbs.	$2.02
Mercury, per 76-lb., f.o.b. N.Y.	$260.00-280.00
Molybdenum, lb. tech. moly oxides, 20 lb. MO can	$3.25
Palladium, per troy oz.	$112.00
Platinum, per troy oz.	$434.00
Rhodium, per troy oz.	$1,160.00
Silver ingots, per troy oz.	$5.02
Titanium sponge, melt grade	$3.40-3.55
Tungsten powder, hyd red.	$9.50-9.85
Vanadium	$6.00
Zirconium sponge	$12.00-17.00

(Per lb. unless otherwise noted)

Straits Tin Price

(U.S. cents per lb. EX-SMELTER, based on daily market in Kuala Lumpur in Malaysian dollars per kilo.)

July 7—247.78
July 8—246.89
July 9—243.37
July 10—244.09
July 11—244.37

Scrap Prices
Brass Mill Scrap

(Cents per lb; over 20,000 lbs. add 1¢ per lb)

	Solids	Turnings
Copper	61	52
Yellow brass	51	47½
Red brass	54¼	53
Comm. bronze	55¾	52
Mang. bronze	42½	41½
Free cutting rod ends	49	48

Custom Smelters Scrap

(Cents per lb., carload lots, del. refinery)

No. 1 copper wire	55
No. 2 copper wire	47
Light copper	38

Ingot Makers Scrap

(Cents per lb., carload lots, del. refinery)

No. 1 copper wire	51
No. 2 copper wire	43
Light copper	34
No. 1 composition	45
No. 1 comp. turnings	44
Hvy. yellow brass solids	30
Hvy. yellow brass turnings	26
Radiators	34

Aluminum

New mixed clips	33	— 34
Old sheet	31	— 32
Old cast	31	— 32
Clean dry borings	32	— 33

Dealers' Scrap

(Dealers' buying price f.o.b. New York in cents per pound)

Aluminum

Segregated clippings	28	— 29
Mixed I.C. clips	26	— 27
Old sheets and cast	23	— 24
Borings and turnings	20	— 21
Duraluminum clippings	24	— 25

Copper and Brass

No. 1 copper wire	47	— 49
No. 2 copper wire	38	— 39
Light copper	32	— 34
Radiators	27	— 28
No. 1 composition	38	— 39
No. 1 composition turnings	35	— 36
Cocks and faucets	28	— 29
Clean heavy yellow brass	27	— 28
Brass Pipe	28	— 29
New soft brass clippings	38	— 40

Lead

Heavy soft lead	5	— 7
Whole batteries	1	— 3
Type metal	15	— 17
Electrotype	13	— 14

Nickel

Nickel solids	110	—120
Nickel rod ends	110	—120
Nickel sheets, clips	110	—120
Nickel turnings	25	— 35

Zinc

New zinc clippings	16	— 17
Old diecast zinc	12	— 13

EFFECTIVE JULY 14, 1986

(Effective July 14, 1986) Prices obtained in trade based on representative tonnages per gross ton delivered to consumer unless otherwise stated. Prices are the opinions of *Iron Age* editors and correspondents, based on contacts with dealers, brokers, generators and users in the industry on the effective date listed above.

Ferrous Scrap Prices

Pittsburgh

No. 1 hvy. melting	$ 71.00 to	$ 72.00
No. 2 hvy. melting	61.00 to	62.00
No. 1 dealer bundles	87.00 to	88.00
No. 1 factory bundles (auto)	90.00 to	91.00
No. 2 bundles	46.00 to	47.00
No. 1 busheling	83.00 to	84.00
Machine shop turnings	8.00 to	9.00
Shoveling turnings	44.00 to	45.00
Cast iron borings	43.00 to	44.00
Low phos. punchings plate	101.00 to	102.00
Heavy turnings	61.00 to	62.00
No. 1 RR hvy. melting	81.00 to	82.00
Rails, 2 ft. and under	93.00 to	94.00
Scrap rails, random lgth	80.00 to	81.00
RR specialties	93.00 to	94.00
No. 1 machinery cast	74.00 to	75.00
Cupola cast	67.00 to	68.00
Heavy breakable cast	30.00 to	31.00
Stainless		
18-8 bundles and solids	515.00 to	525.00
18-8 turnings	415.00 to	425.00

Chicago

No. 1 hvy. melting	$ 71.00 to	$ 72.00
No. 2 hvy. melting	67.00 to	68.00
No. 1 dealer bundles	84.00 to	85.00
No. 1 factory bundles (auto)	84.00 to	85.00
No. 2 dealer bundles	56.00 to	57.00
No. 1 busheling	78.00 to	79.00
Shredder scrap	78.00 to	79.00
Machine shop turnings	27.00 to	28.00
Mixed borings and turnings	22.00 to	23.00
Shoveling turnings	29.00 to	30.00
Cast iron borings	41.00 to	42.00
Low phos. forge crop	97.00 to	98.00
Low phos. punchings plate 1/4 in. and heavier	112.00 to	113.00
Low phos. 2 ft. and under	106.00 to	107.00
No. 1 RR hvy. melting	75.00 to	76.00
Scrap rails random lgth	79.00 to	80.00
Reroller rails	104.00 to	105.00
Rails, 2 ft. and under	99.00 to	100.00
RR couplers and knuckles	90.00 to	91.00
RR car axles	106.00 to	107.00
No. 1 machinery cast	105.00 to	106.00
Cupola cast	92.00 to	93.00
Stove plate	97.00 to	98.00
Steel car wheels	87.00 to	88.00
Stainless		
18-8 bundles and solids	485.00 to	495.00
18-8 turnings	400.00 to	410.00
430 bundles and solids	125.00 to	135.00
430 turnings	85.00 to	95.00

Philadelphia

No. 1 hvy. melting	$ 71.00 to	$ 74.00
No. 2 hvy. melting	63.00 to	66.00
No. 1 dealer bundles	83.00 to	86.00
No. 2 dealer bundles	53.00 to	56.00
No. 1 busheling	83.00 to	86.00
Shredder scrap	82.00 to	85.00
Machine shop turnings	24.00 to	27.00
Mixed borings and turnings	24.00 to	27.00
Shoveling turnings	37.00 to	40.00
Low phos. 5 ft. and under	76.00 to	79.00
Low phos. 2 ft. punchings	93.00 to	96.00
Electric furnace bundles	85.00 to	88.00
RR specialties	76.00 to	79.00
Rails, 2 ft. and under	96.00 to	99.00
Cupola cast	85.00 to	88.00
Heavy breakable cast	53.00 to	56.00
No. 1 machinery cast	92.00 to	95.00

Detroit

Brokers buying prices per gross ton on cars:

No. 1 hvy. melting	$ 54.00 to	$ 55.00
No. 2 hvy. melting	53.00 to	54.00
No. 1 dealer bundles	66.00 to	67.00
No. 2 bundles	33.00 to	34.00
No. 1 busheling	64.00 to	65.00
Drop forge flashings	42.00 to	43.00
Machine shop turnings	28.00 to	29.00
Mixed borings and turnings	8.00 to	9.00
Shoveling turnings	28.00 to	29.00
Cast iron borings	21.00 to	22.00
Heavy breakable cast	32.00 to	33.00
Mixed cupola cast	47.00 to	48.00
Automobile cast	71.00 to	72.00
Stainless		
18-8 bundles and solids	470.00 to	480.00
18-8 turnings	340.00 to	350.00
430 bundles and solids	115.00 to	125.00

Youngstown

Brokers buying prices per gross ton on cars:

No. 1 hvy. melting	$ 56.00 to	$ 57.00
No. 2 hvy. melting	54.00 to	55.00
No. 1 dealer bundles	72.00 to	73.00
No. 2 dealer bundles	32.00 to	33.00
Machine shop turnings	20.00 to	21.00
Shoveling turnings	20.00 to	21.00
Low phos. plate	71.00 to	72.00
Electric furnace bundles	60.00 to	61.00
Galvanized bundles	58.00 to	59.00

Cleveland

Brokers buying prices per gross ton on cars:

No. 1 hvy. melting	$ 54.00 to	$ 55.00
No. 2 hvy. melting	52.00 to	53.00
No. 1 dealer bundles	76.00 to	77.00
No. 1 factory bundles	71.00 to	72.00
No. 2 bundles	30.00 to	31.00
No. 1 busheling	66.00 to	67.00
Machine shop turnings	20.00 to	21.00
Shoveling turnings	20.00 to	21.00
Cast iron borings	18.00 to	19.00
Cut structural & plates 5 ft. and under	67.00 to	68.00
Cut structural & plates, 2 ft. and under	88.00 to	89.00
Low phos. punchings plate	88.00 to	89.00
Foundry steel, 2 ft. & under	53.00 to	54.00
No. 1 RR hvy. melting	59.00 to	60.00
Rails, 2 ft. and under	88.00 to	89.00
Rails, 18 in. and under	90.00 to	91.00
No. 1 machinery cast	79.00 to	80.00
Mixed cast	46.00 to	47.00
Stainless		
18-8 bundles	470.00 to	480.00
18-8 turnings	345.00 to	355.00
430 bundles	120.00 to	130.00

Buffalo

Brokers buying prices per gross ton on cars:

No. 1 hvy. melting	$ 51.00 to	$ 52.00
No. 2 hvy. melting	41.00 to	42.00
No. 1 busheling	68.00 to	69.00
No. 1 dealer bundles	68.00 to	69.00
No. 2 bundles	29.00 to	30.00
Machine shop turnings	13.00 to	14.00
Mixed boring and turnings	13.00 to	14.00
Shoveling turnings	19.00 to	20.00
Cast iron borings	23.00 to	24.00
Low phos. plate	76.00 to	77.00
Structural and plate, 2 ft. and under	77.00 to	78.00
Rails, 2 ft. and under	75.00 to	76.00
Scrap rails, random lgth	61.00 to	62.00
No. 1 machinery cast	74.00 to	75.00
No. 1 cupola cast	71.00 to	72.00

St. Louis

No. 1 hvy. melting	$ 69.00 to	$ 70.00
No. 2 hvy. melting	52.00 to	53.00
No. 1 busheling	79.00 to	80.00
No. 1 dealer bundles	79.00 to	80.00
No. 2 bundles	46.00 to	47.00
Machine shop turnings	17.00 to	18.00
Shoveling turnings	21.00 to	22.00
Cast iron borings	27.00 to	28.00
No. 1 RR hvy. melting	74.00 to	75.00
Rails, random length	74.00 to	75.00
Rails, 18 in. and under	97.00 to	98.00
RR specialties	74.00 to	75.00
Cupola cast	69.00 to	70.00
Heavy breakable cast	43.00 to	44.00
Stove plate	89.00 to	90.00
Steel car wheels	78.00 to	79.00
Rerolling rails	99.00 to	100.00
Unstripped motor blocks	54.00 to	55.00

Birmingham

No. 1 hvy. melting	$ 68.00 to	$ 69.00
No. 2 hvy. melting	64.00 to	65.00
No. 1 dealer bundles	68.00 to	69.00
No. 2 bundles	44.00 to	45.00
No. 1 busheling	68.00 to	69.00
Shredder scrap	86.00 to	87.00
Machine shop turnings	23.00 to	24.00
Shoveling turnings	36.00 to	37.00
Cast iron borings	36.00 to	37.00
Electric furnace bundles	65.00 to	66.00
Elec. furnace, 3 ft. & under	68.00 to	69.00
Structural and plate, 2 ft.	87.00 to	88.00
Structural and plate, 4 ft.	81.00 to	82.00
No. 1 RR hvy. melting	81.00 to	82.00
Scrap rails, random lgth	70.00 to	71.00
Rails, 2 ft. and under	85.00 to	86.00
Angles and splice bars	81.00 to	82.00
No. 1 cupola cast	82.00 to	83.00
Unstripped motor blocks	72.00 to	73.00

Cincinnati

Brokers buying prices per gross ton on cars:

No. 1 hvy. melting	$ 50.00 to	$ 51.00
No. 2 hvy. melting	49.00 to	50.00
No. 1 dealer bundles	69.00 to	70.00
No. 2 bundles	32.00 to	33.00
Machine shop turnings	9.00 to	10.00
Shoveling turnings	12.00 to	13.00
Cast iron borings	19.00 to	20.00
Low phos. 18 in. and under	75.00 to	76.00
Rails, random length	59.00 to	60.00
Rails, 2 ft. and under	75.00 to	76.00
No. 1 cupola cast	64.00 to	65.00
Heavy breakable cast	25.00 to	26.00
Drop broken cast	68.00 to	69.00

New York

Brokers buying prices per gross ton on cars:

No. 1 hvy. melting	$ 40.00 to	$ 42.00
No. 2 hvy. melting	33.00 to	34.00
No. 2 dealer bundles	20.00 to	24.00
Mixed borings and turnings	10.00 to	11.00
Machine shop turnings	4.00 to	6.00
Shoveling turnings	10.00 to	12.00
Clean cast, chem. borings	35.00 to	36.00
No. 1 machinery cast	79.00 to	80.00
Mixed yard cast	50.00 to	51.00
Heavy breakable cast	10.00 to	12.00
Stainless		
18-8 prepared solids	440.00 to	460.00
18-8 turnings	340.00 to	360.00
430 prepared solids	90.00 to	100.00
410 solids	75.00 to	85.00

Boston

Brokers buying prices per gross ton on cars:

No. 1 hvy. melting	$ 49.00 to	$ 51.00
No. 2 hvy. melting	39.00 to	41.00
No. 1 dealer bundles	50.00 to	52.00
No. 2 bundles	32.00 to	34.00
No. 1 busheling	56.00 to	58.00
Shredder scrap	59.00 to	61.00
Machine shop turnings	12.00 to	14.00
Shoveling turnings	18.00 to	20.00
No. 1 machinery cast	72.00 to	77.00
Mixed cupola cast	44.00 to	46.00
Heavy breakable cast	8.00 to	10.00

San Francisco

No. 1 hvy. melting	$ 40.00 to	$ 42.00
No. 2 hvy. melting	34.00 to	36.00
No. 1 dealer bundles	31.00 to	33.00
No. 2 dealer bundles	20.00 to	21.00
Machine shop turnings	8.00 to	9.00
Cast iron borings	8.00 to	9.00
No. 1 cupola cast	80.00 to	82.00

Los Angeles

No. 1 hvy. melting	$ 34.00 to	$ 36.00
No. 2 hvy. melting	28.00 to	30.00
No. 1 dealer bundles	26.00 to	28.00
No. 2 dealer bundles	16.00 to	18.00
Machine shop turnings	9.00 to	10.00
Shoveling turnings	10.00 to	11.00
Cast iron borings	8.00 to	9.00
Elec. furnace, 1 ft. and under (foundry)	67.00 to	69.00
No. 1 cupola cast	72.00 to	74.00

Seattle

No. 1 hvy. melting	60.00 to	62.00
No. 2 hvy. melting	51.00 to	53.00
No. 2 bundles	35.00 to	37.00
No. 1 cupola cast	89.00 to	90.00
Mixed yard cast	80.00 to	82.00

Hamilton, Ont.

Brokers buying prices per gross ton on cars:

No. 1 hvy. melting	$ 76.00
No. 2 hvy. melting, cut 2 ft. and under	67.00
No. 1 dealer bundles	82.00
No. 2 bundles	58.00
Mixed steel scrap	53.00
Bush. new fact. prep'd	77.00
Bush. new fact. unprp'd	60.00
Machine shop turnings	30.00
Short steel turnings	30.00
Mixed borings and turnings	19.00
Cast scrap	97.00

Houston

Brokers buying prices per gross ton on cars:

No. 1 hvy. melting	$ 59.00 to	$ 60.00
No. 2 hvy. melting	49.00 to	50.00
No. 2 bundles	33.00 to	34.00
Machine shop turnings	11.00 to	12.00
Crushed turnings	24.00 to	25.00
Shredder scrap	67.00 to	68.00
Cut structural plate, 2 ft. and under	91.00 to	92.00
Cut structural plate, 5 ft. and under	67.00 to	68.00
Unstripped motor blocks	54.00 to	55.00
Cupola cast	81.00 to	82.00

FLAT TREND GIVES WAY TO DOWNTREND

New orders in May slipped—again—from the plateau they have been on since early 1984.

Orders for the month totaled $103.6 billion, down $100 million, or 0.1 pct, from April. That latest monthly total was $800 million lower than the $104.5 billion in orders posted back in March 1984.

Worse, lately, the long plateau appears to be slipping downward. In the latest 12-month period through May, orders showed four month-to-month gains and eight declines.

Actually, May orders data was worse than it looked. Volatile defense capital goods orders gave a deceptive hypo to total durable goods orders during the month. These defense orders were up a whopping 37 pct, to $8.9 billion. Excluding this defense burst of orders, all other durable goods orders were down 2.6 pct for the month of May.

Only one major metalworking industry group showed an increase in orders in May. That was the transportation equipment group. And even in that case, it was big jumps in orders for military aircraft and ships that accounted for all the gain.

Order declines ruled in machinery lines in May for both electrical and nonelectrical machinery. Orders received by the primary metals industries were down, as they were also for fabricated metals.

Economists generally continue to forecast a solid last half this year. This confuses some executives who live close to the present scene in durable goods orders. But a careful reading of most forecasts shows a big gap in the hard goods manufacturing sector. Capital spending and durable new orders just don't seem able to find a place in the overall economic recovery.

Billions of Dollars, Seasonally adjusted Monthly Total unless otherwise noted Source: U.S. Dept of Commerce		Latest Month or Qtr.	Previous Month or Qtr.	Same Period Year Ago
CAPITAL EXPENDITURES (Annual Rates)				
U.S. Industry, Total	2nd Q*	$400.7	$390.7	$387.8
Manufacturing, Total	2nd Q*	153.8	150.3	154.3
Manufacturing, Durable Goods	2nd Q*	72.7	71.1	74.0
Mining Industry	2nd Q*	14.3	14.1	16.5
KEY INDICATORS, Durable Goods Manufacturing				
New Orders	May	103.6	103.7	103.0
Shipments	May	104.1	106.6	102.7
Inventories	May	187.5	188.0	191.5
Unfilled Orders	May	356.3	356.7	345.1
NEW ORDERS, METALWORKING				
Capital Goods Producers, Nondefense Industries	May	26.3	26.2	25.6
Capital Goods Producers Defense Industries	May	8.9	6.5	8.2
Primary Metals, Total	May	8.9	9.6	10.6
Steel (SIC 331)	May	3.5	3.9	4.2
Iron & Steel Castings (SIC 332)	May	1.2	1.4	1.4
Nonferrous Metals	May	4.2	4.3	5.0
Nonelectrical Mach.-Equip. Industries, Total	May	16.5	16.8	17.3
Engines & Turbines	May	1.1	1.3	1.0
Farm Mach.& Equipment (Shipments)	May	0.8	0.9	0.9
Construction, Mining & Mat. Hdlg. Equip	May	2.8	3.0	2.7
General Industrial Machinery	May	1.5	1.6	1.3
Metalworking Machinery	May	0.9	0.9	0.9
Machine Tools, Total ($Mill.)**	May	207.2	193.3	222.7
Machine Tools, Metalcutting**	May	143.2	136.2	170.7
Machine Tools, Metalforming**	May	61.0	57.1	52.0
Electrical Mach. & Equip. Industries, Total	May	14.7	15.5	14.9
Elec. Transmission & Ind. Equip.	May	2.0	1.9	2.0
Household Appliances	May	1.4	1.4	1.4
Communication Equipment	May	4.6	5.1	5.5
Transportation Equipment, Total	May	28.4	26.5	26.4
Motor Vehicles & Parts (Shipments)	May	17.0	18.1	16.7
Aircraft, Missiles & Parts	May	10.1	7.2	8.0
Shipbuilding & Military Tanks	May	0.7	0.4	1.0
Fabricated Metal Products, Total	May	14.2	14.7	13.6
Instruments, Total	May	4.8	4.5	4.8

*Est. – Commerce Dept. **Source: NMTBA